

# SEQUENCE LISTING

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Monod, Michel

<120> Method of Treating Rhinitis and Sinusitis

<130> 81985/276823

<160> 4

<170> PatentIn version 3.0

<210> 1

<211> 766

<212> PRT

<213> Homo sapiens

<400> 1

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Asp Asp Ala Thr Ala Asp Ser Arg Lys Thr Tyr Thr Leu Thr Asp Tyr
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Leu Lys Asn Thr Tyr Arg Leu Lys Leu Tyr Ser Leu Arg Trp Ile Ser
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Asp His Glu Tyr Leu Tyr Lys Gln Glu Asn Asn Ile Leu Val Phe Asn
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Ala Glu Tyr Gly Asn Ser Ser Val Phe Leu Glu Asn Ser Thr Phe Asp
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Glu Phe Gly His Ser Ile Asn Asp Tyr Ser Ile Ser Pro Asp Gly Gln
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Phe Ile Leu Leu Glu Tyr Asn Tyr Val Lys Gln Trp Arg His Ser Tyr
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Thr Ala Ser Tyr Asp Ile Tyr Asp Leu Asn Lys Arg Gln Leu Ile Thr
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Glu Glu Arg Ile Pro Asn Asn Thr Gln Trp Val Thr Trp Ser Pro Val
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Gly His Lys Leu Ala Tyr Val Trp Asn Asn Asp Ile Tyr Val Lys Ile
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Glu Pro Asn Leu Pro Ser Tyr Arg Ile Thr Trp Thr Gly Lys Glu Asp  
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 Ile Ile Tyr Asn Gly Ile Thr Asp Trp Val Tyr Glu Glu Glu Val Phe  
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 Ser Ala Tyr Ser Ala Leu Trp Trp Ser Pro Asn Gly Thr Phe Leu Ala  
 210 215 220  
 Tyr Ala Gln Phe Asn Asp Thr Glu Val Pro Leu Ile Glu Tyr Ser Phe  
 225 230 235 240  
 Tyr Ser Asp Glu Ser Leu Gln Tyr Pro Lys Thr Val Arg Val Pro Tyr  
 245 250 255  
 Pro Lys Ala Gly Ala Val Asn Pro Thr Val Lys Phe Phe Val Val Asn  
 260 265 270  
 Thr Asp Ser Leu Ser Ser Val Thr Asn Ala Thr Ser Ile Gln Ile Thr  
 275 280 285  
 Ala Pro Ala Ser Met Leu Ile Gly Asp His Tyr Leu Cys Asp Val Thr  
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 Trp Ala Thr Gln Glu Arg Ile Ser Leu Gln Trp Leu Arg Arg Ile Gln  
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 Asn Tyr Ser Val Met Asp Ile Cys Asp Tyr Asp Glu Ser Ser Gly Arg  
 325 330 335  
 Trp Asn Cys Leu Val Ala Arg Gln His Ile Glu Met Ser Thr Thr Gly  
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 Trp Val Gly Arg Phe Arg Pro Ser Glu Pro His Phe Thr Leu Asp Gly  
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 Asn Ser Phe Tyr Lys Ile Ile Ser Asn Glu Glu Gly Tyr Arg His Ile  
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 Cys Tyr Phe Gln Ile Asp Lys Lys Asp Cys Thr Phe Ile Thr Lys Gly  
 385 390 395 400  
 Thr Trp Glu Val Ile Gly Ile Glu Ala Leu Thr Ser Asp Tyr Leu Tyr  
 405 410 415  
 Tyr Ile Ser Asn Glu Tyr Lys Gly Met Pro Gly Gly Arg Asn Leu Tyr  
 420 425 430  
 Lys Ile Gln Leu Ser Asp Tyr Thr Lys Val Thr Cys Leu Ser Cys Glu  
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 Leu Asn Pro Glu Arg Cys Gln Tyr Tyr Ser Val Ser Phe Ser Lys Glu  
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Arg Gly Leu Gln Ala Gly Ala Arg Arg Ala Pro Asp Pro Gly Phe Gln  
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Gly Asn Lys Thr Phe Pro Gln Arg Phe Leu Val Ser Asp Arg Phe Trp  
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Val Arg Gly Glu Gly Pro Thr Phe Phe Tyr Thr Gly Asn Glu Gly Asp  
65 70 75 80

Val Trp Ala Phe Ala Asn Asn Ser Gly Phe Val Ala Glu Leu Ala Ala  
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Glu Arg Gly Ala Leu Leu Val Phe Ala Glu His Arg Tyr Tyr Gly Lys  
100 105 110

Ser Leu Pro Phe Gly Ala Gln Ser Thr Gln Arg Gly His Thr Glu Leu  
115 120 125

Leu Thr Val Glu Gln Ala Leu Ala Asp Phe Ala Glu Leu Leu Arg Ala  
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Leu Arg Arg Asp Leu Gly Ala Gln Asp Ala Pro Ala Ile Ala Phe Gly  
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Gly Ser Tyr Gly Gly Met Leu Ser Ala Tyr Leu Arg Met Lys Tyr Pro  
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His Leu Val Ala Gly Ala Leu Ala Ala Ser Ala Pro Val Leu Ala Val  
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Ala Gly Leu Gly Asp Ser Asn Gln Phe Phe Arg Asp Val Thr Ala Asp  
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Phe Glu Gly Gln Ser Pro Lys Cys Thr Gln Gly Val Arg Glu Ala Phe  
210 215 220

Arg Gln Ile Lys Asp Leu Phe Leu Gln Gly Ala Tyr Asp Thr Val Arg  
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Trp Glu Phe Gly Thr Cys Gln Pro Leu Ser Asp Glu Lys Asp Leu Thr  
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Gln Leu Phe Met Phe Ala Arg Asn Ala Phe Thr Val Leu Ala Met Met  
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Asp Tyr Pro Tyr Pro Thr Asp Phe Leu Gly Pro Leu Pro Ala Asn Pro  
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Val Lys Val Gly Cys Asp Arg Leu Leu Ser Glu Ala Gln Arg Ile Thr  
290 295 300

Gly Leu Arg Ala Leu Ala Gly Leu Val Tyr Asn Ala Ser Gly Ser Glu  
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 His Cys Tyr Asp Ile Tyr Arg Leu Tyr His Ser Cys Ala Asp Pro Thr  
 325 330 335  
 Gly Cys Gly Thr Gly Pro Asp Ala Arg Ala Trp Asp Tyr Gln Ala Cys  
 340 345 350  
 Thr Glu Ile Asn Leu Thr Phe Ala Ser Asn Asn Val Thr Asp Met Phe  
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 Pro Asp Leu Pro Phe Thr Asp Glu Leu Arg Gln Arg Tyr Cys Leu Asp  
 370 375 380  
 Thr Trp Gly Val Trp Pro Arg Pro Asp Trp Leu Leu Thr Ser Phe Trp  
 385 390 395 400  
 Gly Gly Asp Leu Arg Ala Ala Ser Asn Ile Ile Phe Ser Asn Gly Asn  
 405 410 415  
 Leu Asp Pro Trp Ala Gly Gly Gly Ile Arg Arg Asn Leu Ser Ala Ser  
 420 425 430  
 Val Ile Ala Val Thr Ile Gln Gly Gly Ala His His Leu Asp Leu Arg  
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 Ala Ser His Pro Glu Asp Pro Ala Ser Val Val Glu Ala Arg Lys Leu  
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<212> PRT

<213> Homo sapiens

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 35 40 45  
 Gly Trp Val Gly Glu Gln Cys Gln His Cys Gly Gly Arg Phe Arg Leu  
 50 55 60

Thr Gly Ser Ser Gly Phe Val Thr Asp Gly Pro Gly Asn Tyr Lys Tyr  
 65 70 75 80  
 Lys Thr Lys Cys Thr Trp Leu Ile Glu Gly Gln Pro Asn Arg Ile Met  
 85 90 95  
 Arg Leu Arg Phe Asn His Phe Ala Thr Glu Cys Ser Trp Asp His Leu  
 100 105 110  
 Tyr Val Tyr Asp Gly Asp Ser Ile Tyr Ala Pro Leu Val Ala Ala Phe  
 115 120 125  
 Ser Gly Leu Ile Val Pro Glu Arg Asp Gly Asn Glu Thr Val Pro Glu  
 130 135 140  
 Val Val Ala Thr Ser Gly Tyr Ala Leu Leu His Phe Phe Ser Asp Ala  
 145 150 155 160  
 Ala Tyr Asn Leu Thr Gly Phe Asn Ile Thr Tyr Ser Phe Asp Met Cys  
 165 170 175  
 Pro Asn Asn Cys Ser Gly Arg Gly Glu Cys Lys Ile Ser Asn Ser Ser  
 180 185 190  
 Asp Thr Val Glu Cys Glu Cys Ser Glu Asn Trp Lys Gly Glu Ala Cys  
 195 200 205  
 Asp Ile Pro His Cys Thr Asp Asn Cys Gly Phe Pro His Arg Gly Ile  
 210 215 220  
 Cys Asn Ser Ser Asp Val Arg Gly Cys Ser Cys Phe Ser Asp Trp Gln  
 225 230 235 240  
 Gly Pro Gly Cys Ser Val Pro Val Pro Ala Asn Gln Ser Phe Trp Thr  
 245 250 255  
 Arg Glu Glu Tyr Ser Asn Leu Lys Leu Pro Arg Ala Ser His Lys Ala  
 260 265 270  
 Val Val Asn Gly Asn Ile Met Trp Val Val Gly Gly Tyr Met Phe Asn  
 275 280 285  
 His Ser Asp Tyr Asn Met Val Leu Ala Tyr Asp Leu Ala Ser Arg Glu  
 290 295 300  
 Trp Leu Pro Leu Asn Arg Ser Val Asn Asn Val Val Val Arg Tyr Gly  
 305 310 315 320  
 His Ser Leu Ala Leu Tyr Lys Asp Lys Ile Tyr Met Tyr Gly Gly Lys  
 325 330 335  
 Ile Asp Ser Thr Gly Asn Val Thr Asn Glu Leu Arg Val Phe His Ile  
 340 345 350  
 His Asn Glu Ser Trp Val Leu Leu Thr Pro Lys Ala Lys Glu Gln Tyr  
 355 360 365  
 Ala Val Val Gly His Ser Ala His Ile Val Thr Leu Lys Asn Gly Arg  
 370 375 380

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Ser	Asn	Val	Gln	Glu	Tyr	Asp	Leu	Asp	Lys	Asn	Thr	Trp	Ser	Ile	Leu		
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His	Thr	Gln	Gly	Ala	Leu	Val	Gln	Gly	Gly	Tyr	Gly	His	Ser	Ser	Val		
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Tyr	Asp	His	Arg	Thr	Arg	Ala	Leu	Tyr	Val	His	Gly	Gly	Tyr	Lys	Ala		
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Phe	Ser	Ala	Asn	Lys	Tyr	Arg	Leu	Ala	Asp	Asp	Leu	Tyr	Arg	Tyr	Asp		
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Val	Asp	Thr	Gln	Met	Trp	Thr	Ile	Leu	Lys	Asp	Ser	Arg	Phe	Phe	Arg		
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Tyr	Leu	His	Thr	Ala	Val	Ile	Val	Ser	Gly	Thr	Met	Leu	Val	Phe	Gly		
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Ser	Ser	Asp	Phe	Met	Ala	Tyr	Asp	Ile	Ala	Cys	Asp	Arg	Trp	Ser	Val		
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Leu	Pro	Arg	Pro	Asp	Ser	Thr	Met	Met	Ser	Thr	Asp	Leu	Ala	Ile	Pro		
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Ala	Val	Leu	His	Asn	Ser	Thr	Met	Tyr	Val	Phe	Gly	Gly	Phe	Asn	Ser		
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Leu	Leu	Leu	Ser	Asp	Ile	Leu	Val	Phe	Thr	Ser	Glu	Gln	Cys	Asp	Ala		
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His	Arg	Ser	Glu	Ala	Ala	Cys	Leu	Ala	Ala	Gly	Pro	Gly	Ile	Arg	Cys		
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Leu	Asp	His	Asp	Arg	Cys	Asp	Gln	His	Thr	Asp	Cys	Tyr	Ser	Cys	Thr		
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Ala	Asn	Thr	Asn	Asp	Cys	His	Trp	Cys	Asn	Asp	His	Cys	Val	Pro	Arg		
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Cys	Pro	Lys	Asp	Asn	Pro	Met	Tyr	Tyr	Cys	Asn	Lys	Lys	Thr	Ser	Cys		
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 Val Gly Asn Ser Cys Leu Lys Ile Thr Thr Ala Lys Glu Asn Tyr Asp  
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 Asn Ala Lys Leu Phe Cys Arg Asn His Asn Ala Leu Leu Ala Ser Leu  
 740 745 750  
 Thr Thr Gln Lys Lys Val Glu Phe Val Leu Lys Gln Leu Arg Ile Met  
 755 760 765  
 Gln Ser Ser Gln Ser Met Ser Lys Leu Thr Leu Thr Pro Trp Val Gly  
 770 775 780  
 Leu Arg Lys Ile Asn Val Ser Tyr Trp Cys Trp Glu Asp Met Ser Pro  
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 Phe Thr Asn Ser Leu Leu Gln Trp Met Pro Ser Glu Pro Ser Asp Ala  
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 Gly Phe Cys Gly Ile Leu Ser Glu Pro Ser Thr Arg Gly Leu Lys Ala  
 820 825 830  
 Ala Thr Cys Ile Asn Pro Leu Asn Gly Ser Val Cys Glu Arg Pro Ala  
 835 840 845  
 Asn His Ser Ala Lys Gln Cys Arg Thr Pro Cys Ala Leu Arg Thr Ala  
 850 855 860  
 Cys Gly Asp Cys Thr Ser Gly Ser Ser Glu Cys Met Trp Cys Ser Asn  
 865 870 875 880  
 Met Lys Gln Cys Val Asp Ser Asn Ala Tyr Val Ala Ser Phe Pro Phe  
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 Gly Gln Cys Met Glu Trp Tyr Thr Met Ser Thr Cys Pro Pro Glu Asn  
 900 905 910  
 Cys Ser Gly Tyr Cys Thr Cys Ser His Cys Leu Glu Gln Pro Gly Cys  
 915 920 925  
 Gly Trp Cys Thr Asp Pro Ser Asn Thr Gly Lys Gly Lys Cys Ile Glu  
 930 935 940  
 Gly Ser Tyr Lys Gly Pro Val Lys Met Pro Ser Gln Ala Pro Thr Gly  
 945 950 955 960  
 Asn Phe Tyr Pro Gln Pro Leu Leu Asn Ser Ser Met Cys Leu Glu Asp  
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 Ser Arg Tyr Asn Trp Ser Phe Ile His Cys Pro Ala Cys Gln Cys Asn  
 980 985 990  
 Gly His Ser Lys Cys Ile Asn Gln Ser Ile Cys Glu Lys Cys Glu Asn  
 995 1000 1005  
 Leu Thr Thr Gly Lys His Cys Glu Thr Cys Ile Ser Gly Phe Tyr  
 1010 1015 1020



Gly	Asp	Pro	Thr	Asn	Gly	Gly	Lys	Cys	Gln	Pro	Cys	Lys	Cys	Asn
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Gly	His	Ala	Ser	Leu	Cys	Asn	Thr	Asn	Thr	Gly	Lys	Cys	Phe	Cys
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Thr	Thr	Lys	Gly	Val	Lys	Gly	Asp	Glu	Cys	Gln	Leu	Cys	Glu	Val
1055						1060					1065			
Glu	Asn	Arg	Tyr	Gln	Gly	Asn	Pro	Leu	Arg	Gly	Thr	Cys	Tyr	Tyr
1070						1075					1080			
Thr	Leu	Leu	Ile	Asp	Tyr	Gln	Phe	Thr	Phe	Ser	Leu	Ser	Gln	Glu
1085						1090					1095			
Asp	Asp	Arg	Tyr	Tyr	Thr	Ala	Ile	Asn	Phe	Val	Ala	Thr	Pro	Asp
1100						1105					1110			
Glu	Gln	Asn	Arg	Asp	Leu	Asp	Met	Phe	Ile	Asn	Ala	Ser	Lys	Asn
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Gln	Ala	Gly	Glu	Glu	Met	Pro	Val	Val	Ser	Lys	Thr	Asn	Ile	Lys
1145						1150					1155			
Glu	Tyr	Lys	Asp	Ser	Phe	Ser	Asn	Glu	Lys	Phe	Asp	Phe	Arg	Asn
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His	Pro	Asn	Ile	Thr	Phe	Phe	Val	Tyr	Val	Ser	Asn	Phe	Thr	Trp
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<211> 310

<212> PRT

<213> Homo sapiens

<400> 4

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			20					25					30		
Ser	His	Ser	Cys	Cys	Ile	Ser	Gln	His	Cys	Asp	Phe	Phe	Ile	Ser	Lys
			35				40					45			
Tyr	Ser	Asn	Gln	Lys	Asn	Pro	His	Cys	Val	Ser	Leu	Tyr	Lys	Leu	Ser
						55					60				

Ser Pro Glu Asp Asp Pro Thr Cys Lys Thr Lys Glu Phe Trp Ala Thr  
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 Ile Leu Asp Ser Ala Gly Pro Leu Pro Asp Tyr Thr Pro Pro Glu Ile  
 85 90 95  
 Phe Ser Phe Glu Ser Thr Thr Gly Phe Thr Leu Tyr Gly Met Leu Tyr  
 100 105 110  
 Lys Pro His Asp Leu Gln Pro Gly Lys Lys Tyr Pro Thr Val Leu Phe  
 115 120 125  
 Ile Tyr Gly Gly Pro Gln Gly Gln Ile Glu Ile Asp Asp Gln Val Glu  
 130 135 140  
 Gly Leu Gln Tyr Leu Ala Ser Arg Tyr Asp Phe Ile Asp Leu Asp Arg  
 145 150 155 160  
 Val Gly Ile His Gly Trp Ser Tyr Gly Gly Tyr Leu Ser Leu Met Ala  
 165 170 175  
 Leu Met Gln Arg Ser Asp Ile Phe Arg Val Ala Ile Ala Gly Ala Pro  
 180 185 190  
 Val Thr Leu Trp Ile Phe Tyr Asp Thr Gly Tyr Thr Glu Arg Tyr Met  
 195 200 205  
 Gly His Pro Asp Gln Asn Glu Gln Gly Tyr Tyr Leu Gly Ser Val Ala  
 210 215 220  
 Met Gln Ala Glu Lys Phe Pro Ser Glu Pro Asn Arg Leu Leu Leu Leu  
 225 230 235 240  
 His Gly Phe Leu Asp Glu Asn Val His Phe Ala His Thr Ser Ile Leu  
 245 250 255  
 Leu Ser Phe Leu Val Arg Ala Gly Lys Pro Tyr Asp Leu Gln Ile Tyr  
 260 265 270  
 Pro Gln Glu Arg His Ser Ile Arg Val Pro Glu Ser Gly Glu His Tyr  
 275 280 285  
 Glu Leu His Leu Leu His Tyr Leu Gln Glu Asn Leu Gly Ser Arg Ile  
 290 295 300  
 Ala Ala Leu Lys Val Ile  
 305 310